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PROPOSAL

on

AGENTS FOR FUELS AND LUBRICANTS

It is well known that a great deal of constructive work has been done through recent years on the development of numerous agents that improve the performance characteristics of fuels and lubricants. This research and development work has almost invariably been directed toward the use of agents that would improve operating conditions, and it would appear that much useful information could be gained if some work could be directed toward agents that would have very harmful effects on engines.

Such procedure is utilized in many fields of research, but has not been used to any extent in the fuels and lubricants fields. A great deal of most valuable information could be gained that would indicate whole new avenues of approach to the development of fuels and lubricants. In other words, fundamental information on what causes complete seizure of engines and even their destruction will be useful in many directions.

Such a program would involve not only chemical agents that could be used in the fuels and lubricants but also materials that would act as catalysts. In the case of catalysts, a very minor amount of material could possibly cause chemical reactions in the fuels or lubricants that would materially change their characteristics. It would seem that a thorough investigation of both types of materials would be exceedingly useful.

It is proposed that such fundamental research and engine laboratory studies be undertaken as an sponsored project. By so doing, 50X1
would be developing valuable information with reference to fuels and lubricants and their relationship to engines of all types.

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It would seem that there are three categories of materials involved as follows: (1) Diesel fuel; (2) Gasoline fuels; and (3) Lubricants.

proposes that this investigation be initiated by two task 50X1
programs as follows:

Task I. This initial program would involve a careful review of all existing information with reference to agents and catalysts in diesel and gasoline fuels as well as lubricants. The purpose of this task would be to open up the most promising avenues for further and intensive investigation.

It is estimated that Task I would require four months of time by two competent fuels and lubricants chemists.

An estimate of cost of Task I would be as follows:

1.	Two chemists 4 months @ average salary rate of $8000/yr . .	50X1
2.	Scientific supervision (part time)	
3.	Total direct salaries	
4.	Official audited overhead rate (90%)	
5.	Travel (approximate)	
6.	Supplies (approximate)	
7.	Total	
8.	Fixed fee (6%) to reimburse [redacted] for operating costs excluded from official audited rate	50X1
9.	TOTAL FOR TASK I	1-240A

Task II. This program would be undertaken at the conclusion of Task I and would involve a study and testing in engines of the most promising approaches. The most promising catalysts or chemical agents would be developed and studies made of their effectiveness by running in engines. [It is difficult to determine the costs of such a program or the time required, but for purposes of well advancing the study it is suggested that eight months of time be provided to make up a period of one year including the time for Task I.] A general estimate of cost for Task II would be as follows:

1.	Principal investigator (full time) for 8 months at a salary of $9000/yr	50X1
2.	One chemist 8 months @ average salary rate of $8000/yr . . .	
3.	Analytical chemist services for 8 months	
4.	Engine operator 8 months (half time) @ salary of $4800/yr . .	
5.	Total direct salaries	
6.	Official audited overhead rate (90%)	
7.	Small engines, expendable equipment, parts and supplies . . .	
8.	Travel (approximate)	
9.	Total	
10.	Fixed fee (6%) to reimburse [redacted] for operating costs excluded from official audited rate	50X1
11.	TOTAL FOR TASK II	2-242C,

[redacted] is prepared to assign personnel to this program immediately. 50X1